Effect of Teaching Guidelines on Pregnant Women's Knowledge, Practices, and Stress regarding Postpartum Blues

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Abstract

Background of the study: Mood changes in the early days of postpartum are particularly common. Postpartum blues are a common mental health problem during the early postpartum period. There are many alternative therapies to treat this. However, Music therapy is easy to perform without any risk, and with minimal expenses, it decreases the cortisol level in the bloodstream which causes stress and leads to a decrease in the postpartum blues. **The study aims to** evaluate the effect of teaching guidelines on pregnant women's knowledge, practices, and stress regarding Postpartum Blues. **Material and method**: **The research design** adopted for this study is a quasi-experimental pre-test post-test one-group design. **Settings**: The study was applied in the antenatal care clinics at Sohag. **Subjects**: Including 100 pregnant women with a convenient sampling technique was used to select the samples from the previously selected settings. **Tools: Tool (I): Structured interview questionnaire**: Used to collect data regarding personal and **Obstetric** data, **Tool II:** Pregnant women's knowledge **regarding** postpartum blues**, Tool (III):** Pregnant women's reported practices **regarding** postpartum blues**, Tool (V): Perceived Stress Scale-10 (PSS-10). Result:** There was a highly statistically significant difference between pregnant women's knowledge regarding postpartum blues pre and post-teaching guidelines implementation ($p<0.001$**). Before the teaching guidelines implementation, more than three-quarters of pregnant women had unsatisfactory total reported practice scores pre-teaching guidelines implementation regarding postpartum blues which improved, and most of them had satisfactory total reported practice scores post-teaching guidelines implementation. There was a significant reduction in mean post-test postpartum blues scores at $P<0.001$) post-teaching guidelines implementation than pre-teaching guidelines implementation. **Conclusion**: Teaching guidelines implementation had positive effects on improving pregnant women's knowledge, practices, and stress regarding postpartum blues. **Recommendation**: Teaching guidelines implementation regarding the postpartum blues should be taught to pregnant women during the antenatal period to prevent complications associated with these problems.

Introduction:

A woman's life has different stages, during which she has different roles, positions, responsibilities, expectations, and purposes. Among all these motherhood is considered to be very important because womanhood is completed through motherhood. Childbirth is a most momentous period in women's life. The postnatal period is a natural condition with six transformative weeks full of excitement, and planning in the unfolding of life. Every woman wants to enjoy with the baby, the joyful experience of the postnatal period but it is not the same for everyone, sometimes it is associated with minor problems. It is one of the vital events, which needs special care to the postnatal period. Postpartum blues is a most common postpartum mood disorder, which is generally transient and lasts for about a few hours to a week. Postpartum blues are usually characterized by bouts of crying and sadness. Other symptom includes reactivity of mood,

generalized anxiety, and irritability. These symptoms usually begin about 3-4 days after delivery, peak on the 5th day, and most often remit by the 10th postpartum day. Many therapies reduce postpartum blues. Music therapy has positive influences on decreasing postpartum blues and increasing maternal attachment of puerperal women. Many studies show that postnatal mothers who used music therapy as a relaxation technique have decreased levels of postnatal depression. Nurses have an important enabling and facilitating role in helping women to reduce their postnatal blues. Music therapy is easy to perform without any risk and with minimal expenses. The noticeable substantiation is that music therapy reduces the postpartum blues and helps to increase mother-child bonding (**American Psychiatric Association, 2023**).

Postpartum blues might arise as a result of multiple risk factors. These include a history of significant depression or dysthymia, a history of mood swings linked to the menstrual cycle or pregnancy, a higher number of pregnancies during one's lifetime, or a family history of postpartum depression. Low income, ethnic or racial background, gravidity status (primiparous vs. multiparous), planned vs. unplanned pregnancy, spontaneous pregnancy vs. IVF, mode of delivery (vaginal vs. cesarean), family history of mood disorders, or history of postpartum depression in the past are the factors that, when present, do not predispose a patient to the development of postpartum blues **(Bloch et al., 2020).**

Most of the pathogenesis remains unknown. On the other hand, it has long been hypothesized that hormonal fluctuations are one of the main causes of postpartum mood swings. Estradiol, progesterone, and prolactin levels usually drop sharply in the postpartum period. The emotional swings that happen throughout the menstrual cycle, including those seen in premenstrual dysphoric disorder, are also linked to a decrease in these hormones. Additionally, According to research, lower serotoninergic activity in the immediate postpartum period and increased monoamine oxidase levels are important risk factors or etiological traits that may predispose a woman to the development of postpartum blues (**O'Hara & Wisner, 2018).**

Crying, dysphoric affect, irritability, anxiety, insomnia, and changes in appetite are all signs of postpartum blues. When these symptoms do arise, they shouldn't be consistent with major depressive disorder or postpartum depression, if they happen during the postpartum phase. For the symptoms to be considered consistent with postpartum blues, they must typically appear two to three days after delivery and go away in two weeks. The diagnostic criteria for postpartum depression are met if the symptoms last longer than two weeks **(Hahn et al., 2021).**

Postpartum blues, also known as stress depression, is a particular kind of depression that causes more medical injury than general sadness because it presents a second psychological shock to women who have just gone through the agony of childbirth and have not yet recovered. Postpartum depression creates irreversible family responsibilities and socioeconomic issues, endangers the mother's physical and mental health, and impacts the baby's future development and growth (**O'Hara & Wisner, 2018).** Since most women with postpartum depression prefer psychological treatments over pharmaceutical ones and want to avoid medication due to lactation safety requirements and the expectation of a quick response to treatment, there has been a lot of interest in finding safe and effective alternative therapies (**Carter et al., 2019**).

The postpartum blues is a representative psychosomatic disease, meaning that psychological symptoms and somatic symptoms may interact. This is because of the rapid changes in postpartum hormone levels, which can cause psychological symptoms like depression, loss of interest, anhedonia, feelings of guilt or worthlessness, impaired concentration, and suicidal thoughts, as well as somatic symptoms like galactostasis, fatigue, insomnia, nausea, and vomiting, difficulty caring for young children, and disturbances in sleep and appetite (**American Psychiatric Association, 2023).**

Patients experiencing postpartum blues

should undergo a thorough evaluation to see whether they meet the requirements for postpartum depression diagnosis. Making sure the symptoms don't match the criteria for a depressive episode at the time of presentation and that they don't last longer than two weeks would be necessary to achieve this. The doctor should start an antidepressant and supportive psychotherapy treatment plan as soon as postpartum depression, also known as depression with peripartum onset, is officially diagnosed. Antipsychotics should be taken into consideration concurrently with a diagnosis of postpartum depression in case psychotic symptoms are observed (**Zanardo et al., 2020)**.

During their routine prenatal visits, obstetric and community health nurses will have a unique opportunity to offer pregnant women dietary guidance. One of the most crucial things that nurses do with expectant mothers is to promote and educate them about health, acting as advocates for their well-being rather than as disease managers (**Davies et al., 2019**).

Significant of the study:

According to estimates, at least 50% of women have postpartum blues in the initial weeks after giving birth, making them extremely common. Postpartum severe depression is around 4–11 times more likely to occur in women who experience postpartum blues. As with many mental diseases, the interview is the main diagnostic method. A diagnosis of postpartum blues can be made in the case of a female patient who appears either right away after delivery or within two weeks of it, based on her low mood and depressive symptoms that don't fit the criteria for major depressive disorder. A postpartum blues diagnosis should not be given if the symptoms of major depressive illness are present or if the mood disorders last longer than two weeks after delivery (**Ghaffari & Ghaznein, 2020)**.

Those who are diagnosed with postpartum depression or postpartum psychosis are more likely to experience postpartum blues symptoms. According to a specific study carried out in Africa, One month later, women who were diagnosed with "postpartum blues" on the fifth day after giving birth were twelve times more likely to be diagnosed with postpartum depression, and two months later, they were ten times more likely to be diagnosed with postpartum depression (**Zanardo et al., 2020).**

It is possible to think of peripartum mood disorders as existing on a spectrum, with postpartum depression being more incapacitating and postpartum "blues" being milder and self-limited. Postpartum blues, according to its diagnostic criteria, are temporary and self-limiting. As a result, it resolves itself and doesn't need any medical intervention other than psychosocial assistance, education, validation, and assurance (**Seyfried & Marcus, 2020). Hence, the researchers did this study to** evaluate the effect of teaching guidelines on pregnant women's knowledge, practices, and stress regarding Postpartum Blues

Aim of the study

The current study aimed to evaluate the effect of teaching guidelines on pregnant women's knowledge, practices, and stress regarding postpartum blues

Research hypothesis:

H1: Pregnant women who received teaching guidelines will experience higher mean scores of knowledge post-implementation than pre-implementation.

H3: Pregnant women who received teaching guidelines will experience higher mean scores of practices post-implementation than pre-implementation.

H1: Pregnant women who received teaching guidelines will experience lower mean scores of stress post-implementation than pre-implementation.

H2: Pregnant women who received teaching guidelines will experience higher mean scores of postpartum blues level post-implementation than pre-implementation.

Subjects and Methods:

Research design:

The research design adopted for this study was a quasi-experimental pre-test post-test one-group design to fulfill this study.

Setting:

The study was applied in the antenatal care clinics at Sohag.

Sample:
Including 100 pregnant women with a convenient sampling technique was used to select the samples from the previously selected settings**.**

Tools of data collection:

Tool (I): Structured interview questionnaire: It is used to gather information about personal and obstetric data. The researchers created it after conducting a thorough and current literature review, and it was divided into two sections:

Part (1): It included 4 items related to personal data such as (age, educational level, occupation, and residence)
Part (2): Four questions concerning the gravida, abortion, and pregnancy stage were added, along with the obstetrical history of pregnant women;.
Tool (II): Pregnant women's knowledge regarding postpartum blues (pre-post tool)**:** After reading relevant literature, the researcher created this instrument (Zanardo et al., 2020; Seyfried & Marcus, 2020). It has 28 knowledge items that the researchers created to gauge pregnant women's level of knowledge about postpartum blues and where they found information about it.

Scoring system:
There were multiple-choice and "yes/no" questions on postpartum blues. For every "yes/no" question, a zero denoted an erroneous response, while a one denoted a correct response. Additionally, there were three possible answers for the multiple-choice questions: 0 for "don't know," 1 for "incompletely correct," and 2 for "completely correct." For the 28 items, the overall knowledge score varied from 0 to 30. Knowledge was categorized as poor (≤50%), moderate (51-69%), and good (≥70%).

Tool (III): Pregnant women's reported practices regarding postpartum blues (pre-post tool); The researcher reviewed relevant literature before creating this tool (Zanardo et al., 2020; Ghaffari & Ghaznein, 2020; Seyfried & Marcus, 2020). It consisted of two parts. The first part asked 10 questions to gauge the pregnant women's practices.

Scoring system:
"Yes/no" responses were included in the reported practice items, and the total score for the ten items varied from 0 to 10; a correct response received a score of 1, while a wrong response received a score of 0. After calculating the sum of the scores for each item, the level of practice was categorized as satisfactory practices if the score was greater than 60% and unsatisfactory practices if the score was less than 60%.

Tool (V): Perceived Stress Scale-10 (PSS-10).
Cohen et al. (1983) developed the Perceived Stress Scale-10 (PSS10), a ten-item self-report measure used to assess personal stress levels. The nurses are asked to score how they felt and thought throughout the previous month. The nurses responded to each question using a five-point rating system that went from never (0) to very often (4). As a result, the scores of each nurse varied from 0 to 40. Higher reported stress levels were reflected by higher scores.
Scoring system:
PSS scores ranging from 0 to 13 indicated low levels of stress, 14–26 showed moderate levels of stress, and 27 or more indicated severe levels of stress. Four items (items 4, 5, 7, and 8) were scored in reverse. By comparing the PSS with measures of anxiety, depression, helplessness, and disease activity, convergent validity was achieved. 0.78 was the scale's internal consistency.

Fieldwork:
They gave pregnant women an introduction and described the study's objectives. Data was collected over the course of six months, from the beginning of September 2023 to the end of February 2024. It took thirty to forty minutes to finish each interview tool.

After introducing themselves to the expectant mothers, the researchers gathered data. The researchers talked with pregnant women about the purpose and nature of the study straightforwardly and understandably. The dean of the faculty of nursing granted the

directories of Sohag's prenatal clinics an official letter of authorization. Every day from 9:00 a.m. to 11:00 a.m., the researchers were present at the previously chosen locations.
To evaluate pregnant women's knowledge and practices about nutritional issues, the interview lasted roughly 35 to 45 minutes, during which time each woman completed the questionnaire (Tool 1). After evaluating relevant literature on nutritional issues, the researchers created a booklet with supporting information that was distributed to all pregnant study participants.

Teaching guidelines:

It was designed to evaluate the effect of teaching guidelines on pregnant women's knowledge, practices, and stress regarding postpartum blues. It consisted of three main phases:

A-Preparatory phase:

It was predicated on assessment data gathered through learning, knowledge, and practices, book reviews, and interview surveys. The booklet, which was produced according to the sample size and written in Arabic, was distributed after the application of the instructional principles.

Tools validity and reliability

The tool was tested for content validity by a jury of three experts in the field of Obstetrics and Gynecological nursing staff and two experts in psychiatric and community health nursing professors who reviewed the instruments for clarity, relevance, comprehensiveness, understanding, applicability, and easiness, in establishing the reliability and statistically done Alpha Cronbach way to check the stability of the internal consistency of the instrument 1 was 0.987.

Pilot study

After developing the tools, a pilot study was conducted on 10% (10 pregnant women) of cases to test the feasibility and applicability of the tools used in the current study for data collection as well as to determine the time required to be applied and no modifications were done of the questionnaire and the pregnant women who were tested in the pilot study were included in the study sample.

Ethical considerations:

Written initial approval was obtained from the dean of the Faculty of Nursing and the research ethics committee of the Faculty of Nursing, The researchers met both medical and nursing directors of the selected settings to clarify the purpose of the study and get their approval. Written consent was obtained from the pregnant women to participate in the study after the objective of the study was explained to them. The researchers informed the pregnant women that, the study was voluntary, they were allowed not to participate and they had the right to withdraw from the study at any time, without giving any reason. Moreover, they were assured that their information would be confidential.

Implementation phase:

The investigator conducted the pretest by using the Perceived Stress scale to assess the level of stress. Non non-probability convenience sampling technique was used to select the samples.. The investigator obtained the oral consent from the selected samples prior to the study and their personal data were also collected.
Pregnant women were first introduced to the researchers, who also thoroughly explained the purpose of the study and the instrument they would be using to gather the necessary data. The researchers translated the tool into Arabic. The researcher arranged a conference in a chosen clinic and requested all ladies to complete a pretest questionnaire and provide teaching directions. After discussing the session's content, the researcher went on to describe the learning objectives. The researcher used an Arabic language that was suitable for women to grasp during the session.

The theoretical part contained knowledge about postpartum blues such as meaning, causes, signs and symptoms, nursing care, prevention, and complications of these postpartum blues. It was implemented through lectures, posters, educational films, scenarios, and role-plays.

The practical part contained information about postpartum blues and how

to cope with them. It was implemented through lectures, posters, and educational films. It included the following topics such as cognitive-behavioral therapy (CBT) and interpersonal psychotherapy, meditation, progressive muscle relaxation, and breathing exercises.

III: Evaluation phase:-

During this phase, one month after the implementation of the teaching guidelines evaluation was done using the same format of pre-test tools that was used to evaluate the effect of teaching guidelines on pregnant women's knowledge, practices, and stress regarding postpartum blues**.**

Statistical Analysis:

The researchers examined, categorized, and then coded the information in each questionnaire. SPSS software version 21 was used to tabulate and analyze the data. Figures are handled in Excel. Information was presented using descriptive statistics like means and standard deviations for quantitative variables and frequencies and percentages for qualitative factors. Pregnant women's knowledge before and after the program was measured using the paired T-test, and any changes were analyzed. Pearson correlation analysis at P-value was performed to assess the correlations between quantitative variables.

Results:

Table (1): illustrates that 58% of the studied sample were in the age group from 25-35 year years old. Regarding residence and 68% of the studied sample were living in urban areas and 46% of them had secondary education.

Table 2 demonstrates that, of the pregnant women, 56% were in the first trimester, 67% had never had an abortion, and 60% were multigravida.

Doctors were the primary source of knowledge on postpartum blues for the pregnant women in the study (55%), as shown in **Figure 1.**

Table (3): Reveals that there was a highly statistically significant difference between pregnant women's knowledge regarding postpartum blues pre and post-teaching guidelines implementation (p<0.001**).

Figure (2) shows that the overall level of knowledge among pregnant women about postpartum blues improved both before and after teaching guidelines.

Figure (3) shows that pregnant women's overall practice level regarding postpartum blues before and after teaching guidelines improved. According to Figure 3, 89% of expectant mothers had unsatisfactory total practice scores before the teaching guidelines on postpartum blues were implemented. However, after the guidelines were implemented, 91% of them had satisfactory total practice scores.

Table 4 shows that in the pretest, the majority of studied **pregnant women** (68%) had high stress, and (32%) had moderate levels of stress. In the posttest, the majority of studied **pregnant women** (86%) their stress levels decreased and had low stress, and (14%) had moderate level of stress.

Table 5 shows that in the pretest, the mean and standard deviation of the total level of stress among studied **pregnant women** was 33.42±4.33. In posttest, the mean and standard deviation of the level of stress among studied **pregnant women** was 11.34±3.21.

Table 6 illustrates that there was statistically significant differences in the mean score regarding the effect of **teaching guidelines** on stress among studied **pregnant women** pretest and posttest.

Table (7):- Shows statistically significant difference and decrease in mean scores regarding the postpartum blues among the studied **pregnant women** pre and post-**teaching guidelines** implementation at P=<0.001.

Figure 4 predicts that after the **teaching guidelines** implementation regarding the level of postpartum blues, there was a significant reduction in the level of postpartum blues among the studied **pregnant women** post **teaching guidelines** implementation. Where posttest postpartum blues level displays that (67%) had a mild level of postpartum blues, (33%) had moderate postpartum blues level, and none had severe postpartum blues.

Table (8) shows that pregnant women's knowledge and practices about postpartum blues were correlated before and after the implementation of teaching guidelines (p=<0.001).

Table (9) showed that pregnant women's demographic traits, such as age and educational attainment, were statistically significantly correlated with their knowledge of postpartum blues. There was no correlation found between the other demographic traits and women's expertise.

Table (1): Personal data among the studied postnatal mothers in the (n-100)

Personal data	the studied postnatal mothers (n=100)	
	No	%
Age		
From 18-25 year	58	58
From 25-35 year	42	42
Residence		
Urban	68	68
Rural	32	32
Education		
Illiterate	20	20
Primary	24	24
Secondary	46	46
University	10	10

Table (2): The studied pregnant women distribution regarding their obstetric history (n=100)

Item	Pregnant women (100)	
	No.	%
Gravida		
- Primigravida	40	40
- Multigravida	60	60
Abortion		
- Less than 2	20	20
- More than 2	13	13
- No abortion	67	67
Pregnancy stage		
- First Trimester	56	56.0
- Second Trimester	44	44.0

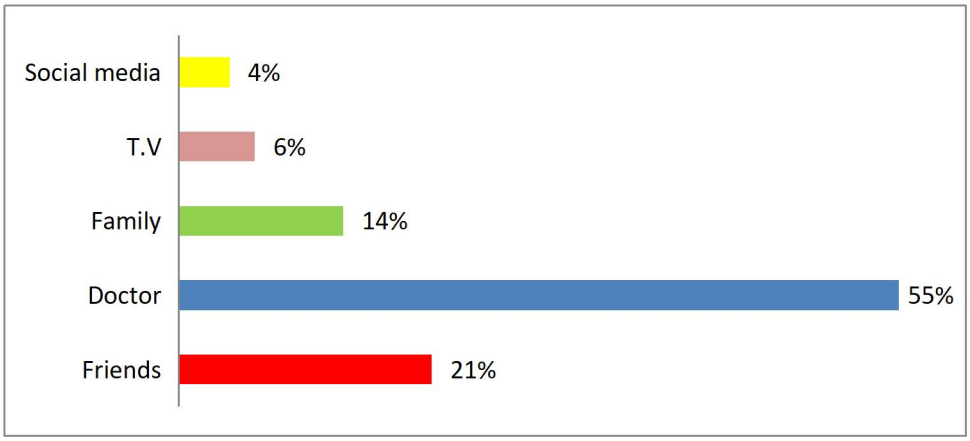

Figure (1): Source of information about postpartum blues **among the studied pregnant women (n=100)**

Table (3): Mean differences between knowledge of the studied pregnant women regarding postpartum blues pre and post-teaching guidelines implementation (n=100).

Variable	Pre-intervention	Post-intervention	Paired t-test	P-value
	Mean ±SD	Mean ±SD		
Meaning of postpartum blues	1.47± 0.48	4.62±1.37	45.8	<0.001**
Signs and symptoms of postpartum blues	1.54±0.79	4.63±44.83	217.3	<0.001**
Diagnosis of postpartum blues	1.59±0.38	4.21±0.92	75.3	<0.001**
Prevention of postpartum blues	2.48±0.83	4.51±0.84	54.2	<0.001**
Complications of postpartum blues	2.65±0.58	4.62±0.51	65.7	<0.001**

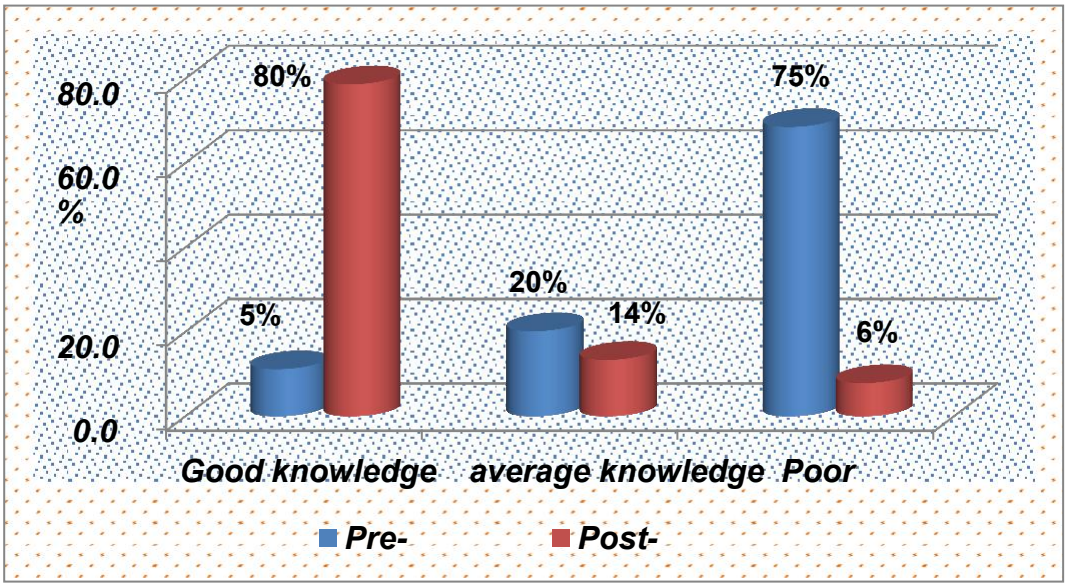

Figure (2): Total knowledge level among the studied pregnant women regarding postpartum blues pre and post-teaching guidelines implementation (n=100).

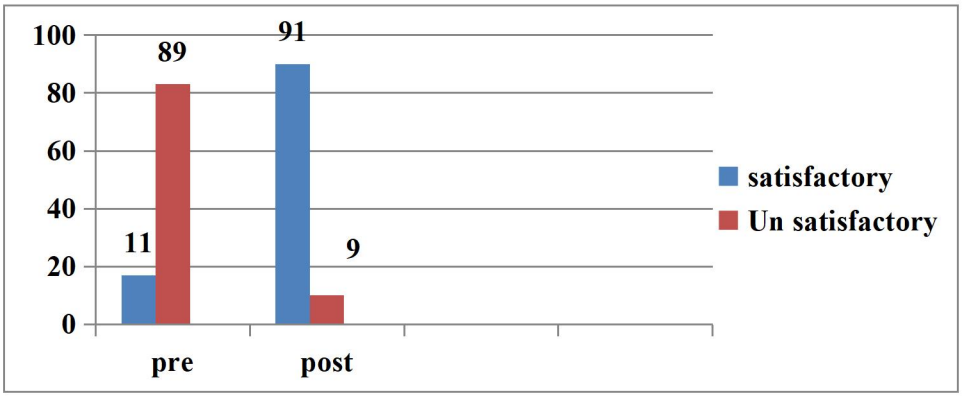

Figure (3): Total practice level among the studied pregnant women regarding postpartum blues pre and post-teaching guidelines implementation (n=100).

Table 4: Comparison between pretest and post-test of the stress levels among the studied pregnant women pre and post-teaching guidelines regarding postpartum blues (n=100)

Level of Stress	Pre Test		Post Test	
	No	(%)	No	(%)
Low Stress	0	0	86	86
Moderate Stress	32	32	14	14
High Perceived Stress	68	68	0	0

Table 5: Differences between mean scores pretest and post-test of the total stress levels among the studied **pregnant women pre and post-teaching guidelines regarding postpartum blues (n=100)**

Items	Pre Test	Post Test
	Mean Standard deviation	Mean Standard deviation
Total Level of Stress	33.42±4.33	11.34±3.21

Table 6: Effect of teaching guidelines on stress among the studied pregnant women pre and post-implementation **(n=100)**

	Phase	Mean	Standard Deviation	Paired to test	P - value
Taichi Exercise On Stress	**Pretest**	33.42	4.33	42.36**(S)**	4.78
	Posttest	11.34	3.21		

****Significant level at P value < 0.001***

Table 7: Mean score differences regarding postpartum blues levels among the studied **pregnant women pre and post-teaching guidelines** implementation **(n=100)**

Items	Pre-intervention	Post-intervention	P – value
	Mean ±SD	Mean ±SD	
Postpartum blues	67.22±7.55	45.11±8.42	12.37 P=<0.001**

****Significant level at P value < 0.001***

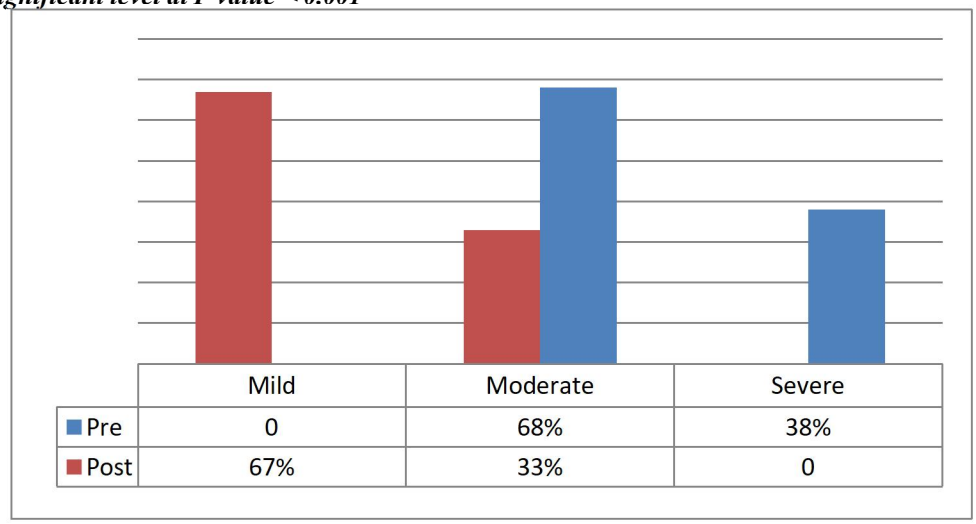

Figure 4: Total Postpartum Blues levels among the studied postnatal pregnant women pre and post-teaching guidelines implementation **(n=100)**

Table (8): Correlation matrix of total knowledge and practice scores of the studied pregnant women regarding postpartum blues pre and post-teaching guidelines (n=100)

Items	Pre-test		Post-test	
	r	p	r	p
Knowledge VS practice	0.367**	<0.001*	0.305 **	<0.001*

(**) statistically significant at p<0.01

Table (9): Association between pregnant women's knowledge, regarding the postpartum blues **during pregnancy and their demographic characteristics**

Demographic characteristics	M	SD	Statistical test	P-value
Age (years)				
• 18<30	16.33	6.05	r=2.13	.013
• 30>40	17.56	3.62		
Educational level				
• Illiterate	17.22	3.33	F=3.45	.035
• Basic education	18.32	3.66		
• Secondary education	16.23	3.44		
• University education	17.32	3.31		
Occupation				
• Working	16.24	6.22	t=-0.56	583
• Not working	17.53	3.34		
Residence				
• Urban	17.43	3.34	t=-0.25	.804
• Rural	17.72	4.52		

Discussion:

The postnatal phase is one of the significant times and needs special attention. Usually lasting a few hours to a week, postpartum blues are one of the most common mood disorders that occur after giving birth. Typical signs of postpartum blues include depressed episodes and outbursts of crying. Other symptoms include tension, emotional reactivity, irritability, and generalized anxiety. After giving birth, these symptoms usually begin three to four days later, peak on the fifth day, and disappear by the tenth day. According to **Chrzan-Detkos et al. (2021**), it is typified by bad mood, diminished energy, diminished enjoyment, significant functional disability, low self-esteem, and thoughts or actions of suicide or self-harm. Several methods can help reduce the postpartum blues (**Ghaffari & Ghaznein, 2020).** The study aimed to evaluate the effect of teaching guidelines on pregnant women's knowledge, practices, and stress regarding postpartum blues**.**

The findings of this study indicated that over half of the sample was in the 25–35 age range. From the perspective of the researcher, the younger age may be the reason for the lack of knowledge. **Akbarzade et al. (2019)** observed that 73.4% of pregnant women in their study were between the ages of 26 and 30. Their study compared the benefits of attachment and relaxation education on third-trimester depression.

However, those results of the current study conflict with those of a systematic evaluation of therapies for the prevention of postpartum depression in adolescent moms (**Sangsawang et al., 2019**), which found that all of the pregnant women in the study were between the ages of 18 and 25.

The current study's findings on education level showed that about half of the pregnant women (both study and control groups) were in secondary school, which explains their cooperation, comprehension, and adherence to the curriculum. (**Kerie et al.,**

2018) found that 38.2% of respondents had just a secondary education, which is consistent with their findings on the prevalence and contributing variables of postpartum depression in Southwest Ethiopia. The current study's findings also conflict with those of a study on Portuguese knowledge and attitudes toward postpartum depression by **Branquinho et al. (2019)**, which indicated that 73.7% of pregnant women had higher education and 24.3% had secondary education.

The results of this study showed that the majority of pregnant women in both the study and control groups lived in rural areas. This outcome could be ascribed to Benha University's outpatient clinic, which is visible and easily accessible to a significant number of people, particularly those from low- and middle-income rural communities, and provides the service for a little fee. This result is in line with that of **Shrestha et al. (2019**), who studied the incidence and prevalence of postpartum depression in a rural Indian community and discovered that all 200 women lived in rural areas. However, this study's findings conflict with those of **Branquinho et al. (2019)**, who discovered that over half of the 448 (72.1%) them were residents in urban areas while the remaining 173 (27.9%) were residents in rural areas.

This could be because most of them live in rural areas. This finding is consistent with research by **Al-Ghamdi et al. (2019**) on the prevalence and contributing factors of postpartum depression in mothers at King Abdulaziz University Hospital, which found that 74.7% of them were housewives. However, this study's findings are at odds with those of **Azad et al. (2019**), who investigated the prevalence and risk factors of postpartum depression within a year after giving birth in Dhaka, Bangladesh's urban slums and discovered that 62.5% of women were employed and 37.5% were housewives.

The present study's findings demonstrated that doctors were the primary source of knowledge regarding postpartum depression among the pregnant women under investigation. This finding highlighted the significance of healthcare providers in enhancing nutrition education to give expectant mothers the knowledge they need to avoid the complications of postpartum depression.

The findings of the present investigation showed a highly statistically significant difference between the awareness of pregnant women about postpartum blues before and after the application of teaching standards. According to the researchers, it validated the benefits of offering guidance and linked the improvement of pregnant women's knowledge to the benefits of managing postpartum blues.

The results of this study showed that pregnant women's understanding of postpartum blues before and after teaching guidelines improved and differed in a highly statistically significant way. This outcome demonstrated how well the postpartum blues teaching recommendations worked. This study's results are consistent with those of **Jaya-Salengia et al. (2019**), who discovered that data analysis revealed a notable increase in postpartum blues knowledge from 56% before the project to 92.7% following the project intervention. However, this study's findings are at odds with those of **Hensley (2020**), who investigated prenatal education to enhance postpartum depression reporting and discovered no statistically significant differences between the groups. This suggests the intervention group did not have an effect; this may be related to the small sample size and severe.

According to the current study's findings, most pregnant women had inadequate total practice scores before the introduction of teaching guidelines about postpartum blues. However, after the guidelines were put into place, the majority of them had satisfactory total practice scores. This study's findings are consistent with those of **Beydokhti et al. (2021),** who investigated the impact of an educational counseling program based on the precede-proceed model during pregnancy on postpartum depression. They discovered that there was a lack of beliefs about blues, with no statistically significant difference between the case and control groups regarding beliefs about blues (pre-test). However, following the implementation of the educational counselling

program, the case group's knowledge and beliefs were improved.

According to the current study's findings, the majority of pregnant women under investigation had high levels of stress during the pretest. Most of them saw a decrease in stress in the posttest, with low stress and moderate stress (14%) being the most common. When the study's pregnant participants followed the instructional guidelines, the researchers found that their stress levels decreased.

The results of the current study showed that after teaching guidelines, the mean and standard deviation of the observed pregnant women's stress levels decreased in the posttest. The results, according to the researchers, demonstrated the effectiveness of the training instructions and justified their necessity for the pregnant women in the study.

The results of the current study showed that the mean score for the effect of teaching guidelines on stress varied statistically significantly between the pretest and posttest among the pregnant women under study. The researchers concluded that it proved the efficacy of applying instructional principles. The study by **Slomian et al. (2019**), which reported the same findings, supports this conclusion.

The results of the current study estimated that the level of postpartum blues among the pregnant women under study would significantly decrease following the implementation of the teaching guidelines, indicating that the guidelines were helpful in reducing postpartum anxiety, tension, and depression. This outcome is consistent with the findings reported by **Savarimuthu et al. (2020**).

According to the study's findings, pregnant women's knowledge and behaviors regarding postpartum blues were correlated before and after the application of teaching guidelines. This is explained by the fact that adequate information is invariably linked to effective practices. This study's findings are consistent with those of **Moshki et al. (2019**), who investigated the impact of educational interventions on preventing postpartum blues and discovered a significant correlation between total knowledge and total belief following the intervention. Additionally, the blues score showed a positive correlation with the total knowledge post-test ($p \leq 0.0001$). This may be because those who know more about the blues have more favorable attitudes about it. On the other hand, this finding of the present study disagree with (**Abazie et al., 2021**) who found that there was no statistical correlation between total knowledge and total beliefs before, immediately after, and at follow-up phases of implementation.

The results of the current study demonstrated that certain of the demographic traits of pregnant women, such as age and educational level, were statistically significantly correlated with their knowledge of postpartum blues. There was no correlation found between the other demographic traits and women's expertise. In terms of education, health literacy and the extent to which women can access and comprehend basic health information are associated with knowledge deficits (**Berkman et al., 2019**).

These findings align with those of **Kululanga et al. (2020**), who examined the case of pregnant women in Chiladzulu District and found that pregnant women's lack of knowledge about health promotion activities during pregnancy may be related to their young age and low educational level.

Conclusion:

It was determined based on the study's results and hypothesis that teaching guidelines implementation had positive effects on improving pregnant women's knowledge, practices, and stress regarding postpartum blues.

Recommendations:

In the light of the findings obtained from the current study, the following recommendations were suggested:

- Teaching guidelines implementation regarding the postpartum blues should be taught to pregnant women during the

antenatal period as a part of routine care to prevent complications associated with these problems.
- The educational booklet should be distributed to pregnant women about postpartum blues during pregnancy **to avoid after delivery.**
- Training health workers, especially obstetric, psychiatric, and community health nurses, about assessment and management of postpartum blues.
- To enable generalization, more investigation and replication of this work with a large sample size are needed.

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